What Is Claimed Is:

- A method for changing software in a first memory area in 1. a control unit for controlling operational sequences, the execution of old software parts being replaced by the execution of new software parts and the old software parts being written into the first memory area, wherein the new software parts are written into a second memory area and, due to a first branching in the first memory area, instead of the old software parts being executed in the first memory area, the new software parts are executed in the second memory area, the system, following the execution of the new software parts, branching back again into the first memory area via a second branching in the second memory area and the execution of the other software distinct from the old software parts being continued in the first memory area, the old software parts remaining in the first memory area.
- The method as recited in Claim 1, wherein the second memory area is only used to receive the new software parts.
- 3. The method as recited in Claim 1, wherein the first branching and the second branching are implemented by at least one chained list.
- 4. The method as recited in Claim 1, wherein as a first branching a start address of the new software parts is used, this being used to overwrite at least partially the old software parts.
- 5. The method as recited in Claim 1, wherein as the second branching a start address of the additional software distinct form the old software parts is used.

- 6. The method as recited in Claim 1, wherein the new software parts contain information that indicates which old software parts are to be replaced.
- 7. The method as recited in Claim 1, wherein the new software parts contain information that indicates by which new software parts the old software parts are to be replaced.
- 8. The method as recited in Claim 1, wherein the second memory area, in addition to at least one new software part, contains an address for the first branching, an address for the second branching and an address for the start of the old software part, which is to be replaced by the at least one new software part.
- 9. The method as recited in Claim 8, wherein the second memory area furthermore contains the length of the at least one new software part and/or of the at least one old software part.
- 10. The method as recited in Claim 8 or 9, wherein the elements of Claim 8 and/or the elements of Claim 9 are integrated into a data record in the second memory area.
- 11. The method as recited in Claim 10, wherein at least two old software parts and the at least two new software parts, which replace these, are provided, the respective elements of Claim 8 and/or 9 being respectively integrated into one data record and written into the second memory area.
- 12. The method as recited in Claim 1, wherein as the first memory area a first table and as the second memory area a second table are provided in the same memory.

- 13. The method as recited in Claim 1 or 12, wherein the first memory area and the second memory area are divided into two software sections of equal size, it being possible for a new software part to be written into each software section of the second memory area.
- 14. The method as recited in Claim 10 or 13, wherein every data record or every software section is provided with an identification.
- 15. The method as recited in Claim 14, wherein the identification for a software section in the first memory area, which contains an old software part, and the identification for the corresponding software section having the new software part, which replaces the old software part, are the same.
- A device for changing software in a first memory area in 16. a control unit for controlling operational sequences, the execution of old software parts being replaced by the execution of new software parts, and the old software parts being written into the first memory area, wherein means are included, which write the new software parts into a second memory area and a first branching into the first memory area, whereby, instead of the old software parts being executed in the first memory area, the new software parts are executed in the second memory area, the means also writing a second branching into the second memory area, whereby, following the execution of the new software parts, the system branches back again into the first memory area and the execution of the additional software distinct from the old software parts is continued in the first memory area, the old software parts remaining in the first memory area.

- 17. A control unit having a first memory area, in which old software parts and additional software parts distinct from the old software parts are stored, wherein the control unit contains a second memory area, which contains new software parts replacing the old software parts, wherein means are included, which write the new software parts into a second memory area and a first branching into the first memory area, whereby, instead of the old software parts being executed in the first memory area, the new software parts are executed in the second memory area, the means also writing a second branching into the second memory area, whereby, following the execution of the new software parts, the system branches back again into the first memory area and the execution of the additional software distinct from the old software parts is continued in the first memory area, the old software parts remaining in the first memory area.
- 18. A computer program having program code for performing all steps as recited in one of Claims 1 through 15, if the program is executed on a computer, in particular in a control unit.